aseko Ipool Net Controller User Manual

USER MANUAL
Ipool Net Controller
INTELLIGENT NETWORK CONTROLLER
to Control the Pool Technology with Smartphone
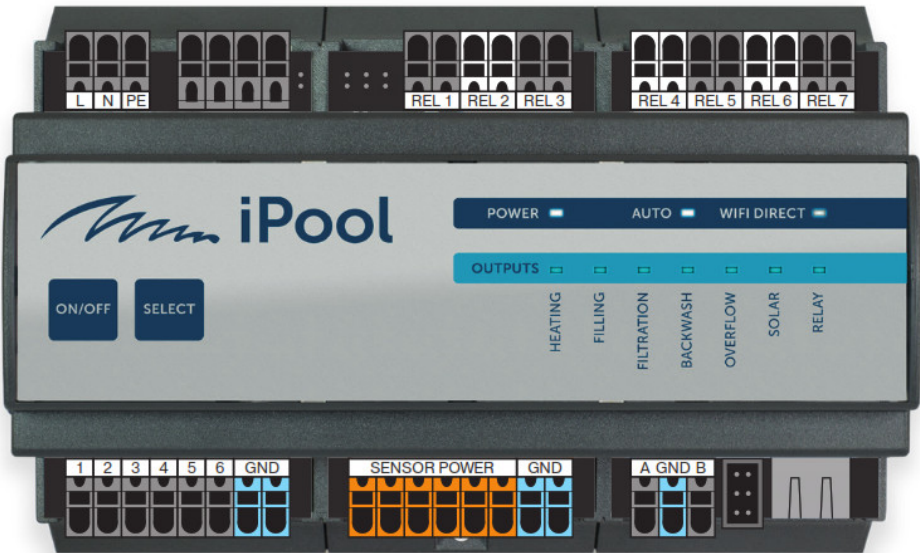
Contents

General Safety Information

This user manual has basic information that should be observed during assembly, start-up, operation, and maintenance. Therefore, this user manual must be read by installers and operators prior to assembly and start/up, and must be accessible to every user of this unit. Additionally, all further safety information in this document absolutely must be observed. Read and follow all instructions. In order to minimise the danger of injury, do not allow children to use this product. Hazards from non-compliance with safety information. Non-compliance with safety information can result in hazards to persons, the environment, and the equipment. Non-compliance with safety information will result in a forfeit of any potential right to damage compensation.

Non-Observance of Safety Instructions
Failure to observe the safety instructions given in this User Manual can result in damage to Device and/or health and property, including environment.
Failure to observe the safety instructions and information given in this User Manual shall result in exclusion or restriction of the prospective right to compensation for damage.

Insufficient Qualification of Person Using the Device
Hazards in the event of insufficiently qualified personnel, potential consequence: Injury, heavy material damage.

- The system operator must ensure compliance with the required qualification level.
- Any and all work may only be performed by correspondingly qualified personnel.
- Access to the system must be prevented for insufficiently qualified persons, e.g. via access codes and passwords.

Non-compliance with informational text
There is a great deal of informational text indicating hazards and their avoidance. Not observing informational text may lead to hazards. Potential consequence: gravest degree of injury, heavy material damage.

- Read all informational text carefully.
- Cancel the process if you are unable to exclude all potential hazards.

Use of Device New Functions
Because of the continued development, a Ipool Net Controller® unit may contain functions, which are not completely described in this version of the user manual. The use of such new or extended functions without a profound and secure understanding by the operator may result in malfunctions and severe problems. Potential consequence: Injury, heavy material damage.

- Make sure to get a profound and secure understanding of a function and relevant boundary conditions, before you start to use it.
- Check for an updated version of the user manual or additional documentation available for the relevant functions.
- Make use of the integrated help function of the Ipool Net Controller® to get detailed information on functions and their parameter settings.
- In case it should not be possible to get a profound and secure understanding of a function based on the available documentation, do not use this function.

Conditions to be Met before You Start Using Device
Make sure you have a newest and updated version of the user manual and other documentation for all functions of the unit. Use and read the integrated help features. In case of not understanding the information about certain features of the unit, do not use these features.

Box Content

Ipool Net Controller
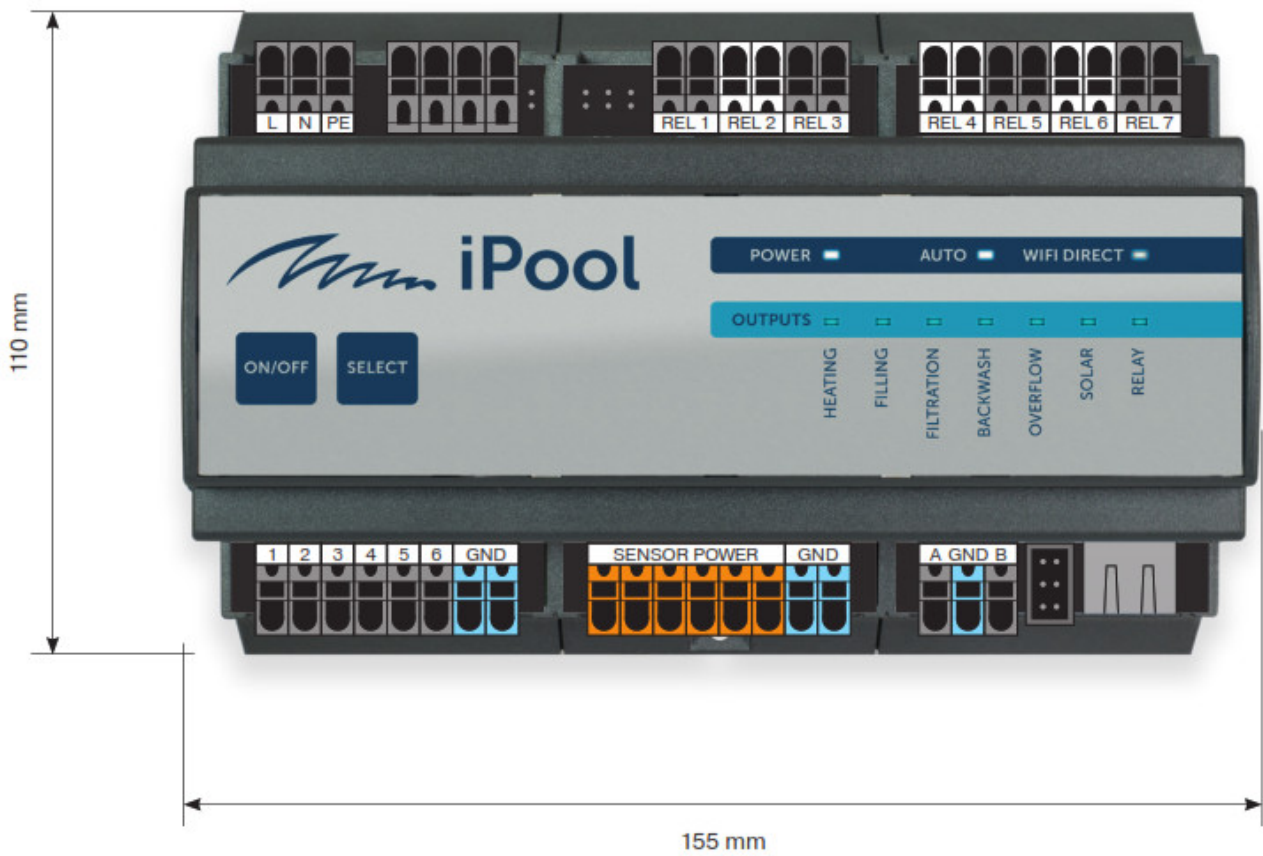
Power supply	110-240 VAC / 50 Hz / 60 Hz
Input power	10 VA
Overvoltage category	II
Protection degree	IP30
Climatic resistance	+5 to +40°C
Weight	800 g
Installation	wall DIN rail mounting
Relay output contacts	max 230 V / 1 A, potential free contact – NO
Dimensions	155 x 110 x 60 mm and 55 x 110 x 60 mm
Sensor power supply	6 x 18 VDC / max 50mA

Accessories Available for Purchase

110 mm

55 mm
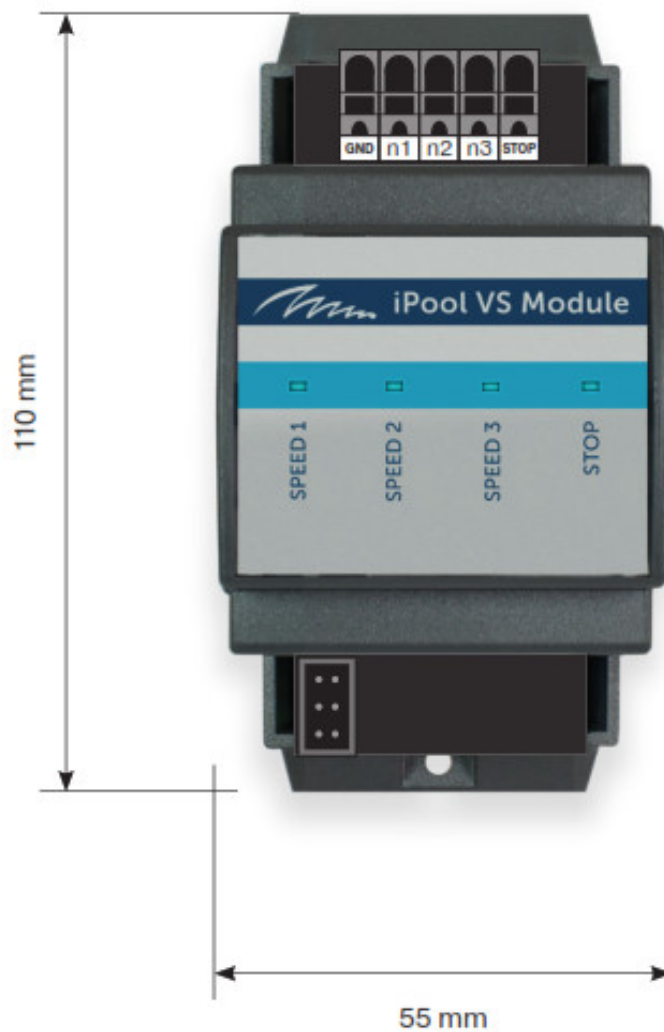
Water thermometer with well #12010

Air thermometer

Solar collector thermometer

Pressure-type level sensor #12086

5-way BESGO valve

3-way BESGO valve

Ipool Net Controller

The network controller to control the pool technology. The Ipool Net Controller network controller is able to control and adjust all the pool technology elements. The Ipool Net Controller can be adjusted and controlled by means of the perfectly designed user-friendly application via the internet. In case of an internet failure, it is possible to establish connection to the controller directly through the WIFI Direct. The Ipool Net Controller is intended for the DIN rail mounting directly into the switchboard.

Basic Functions.

The Ipool Net Controller has capacity for 6 preset basic pool operation modes.
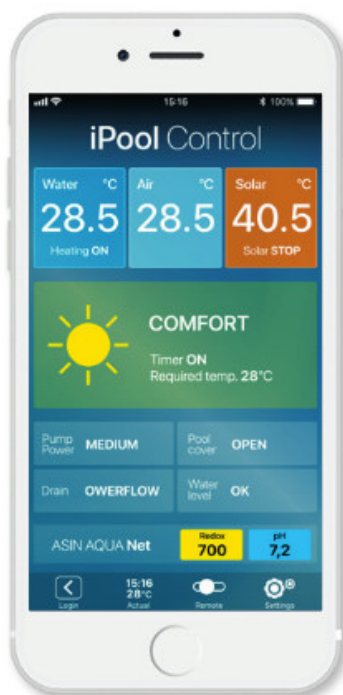
OFF All is switched off.

ON The circulating pump is switched on at speed 2 (variable pumps can be set to 3 speeds) and heating switched off.

COMFORT This mode is intended for routine pool operation when the priority is to achieve the required temperature. This mode alow to preset four filtering periods in the day when you can preset the pumping power and select if to use the overflow or the bottom drainage.

PARTY This mode switches the circulating pump at the speed 2 and heating the required temperature. This mode has no time functions.

SMART The same as COMFORT mode together with SMART Heating function.

WINTER To enable this function is necessary to install the outdoor thermometer.

- If outdoor temperature drops below 0 °C the circulating pump is switched on.
- After 15 minutes system check the water temperature .
- If the water temperature is still below the preset freezing temperature (e.g. 4 °C), the relay switchesthe heating on.
- After the preset temperature is reached, the circulating pump stops. Next test of pool temperature and the circulating pump start will follow in 6 hours.

Solar collector

iPool

Pool blind/ cover

Gutter

Automatic refilling

Pool nozzle

Equalisation tank or skimmer

Water level sensorr

Bottom outlet

5-way BESGO valve for **filter backwashing**

3-way BESGO valve for **gutter/outlet switching over**

Solar collector pump

Solar collector heat exchanger

Heat exchanger / heating

Terminal Board

Water thermometer
Air thermometer
Water level sensor
Solar collector thermometer

GND

Power supply of sensors

GND

Not connected

LAN

Connection of Ipool Net Controller and VS Pump module

L
N
PE

Not connected

HEATING

REFILLING

FILTRATION

FILTER WASHING (BESGO)

BOTTOM/GUTTER (BESGO)

SOLAR COLLECTOR

POOL LIGHTING

GND
n 1
n 2
n 3
STOP

Electrical Connection

RCD

CB6A(B)   CB10A(D)

POWER SUPPLY
L
N
PE

① HEATING   L is logic signal

② HEATING   Independent logic signal

HEATING

REFILLING   Refilling solenoid

FILTRATION   Filtration relay
                             Filtration pump

FILTER WASHING (BESGO)   BESGO (filter washing)

BOTTOM/GUTTER (BESGO)   BESGO (bottom/gutter)

SOLAR COLLECTOR   Solar collector pump

POOL LIGHTING   Lighting

Potential free contacts for logic signal, Max 24V.

Do not connect the filtration pump power supply.

Filter pump with variable speed

L N PE

Control and Settings

Manual Button Operation
For easier installation and necessary events…

POWER:
On/Off

AUTO:
automatic mode / manual mode (testing)

WIFI DIRECT:
On/Off

Relay status indication:
ON/OFF

Turning on/off

Relay selection
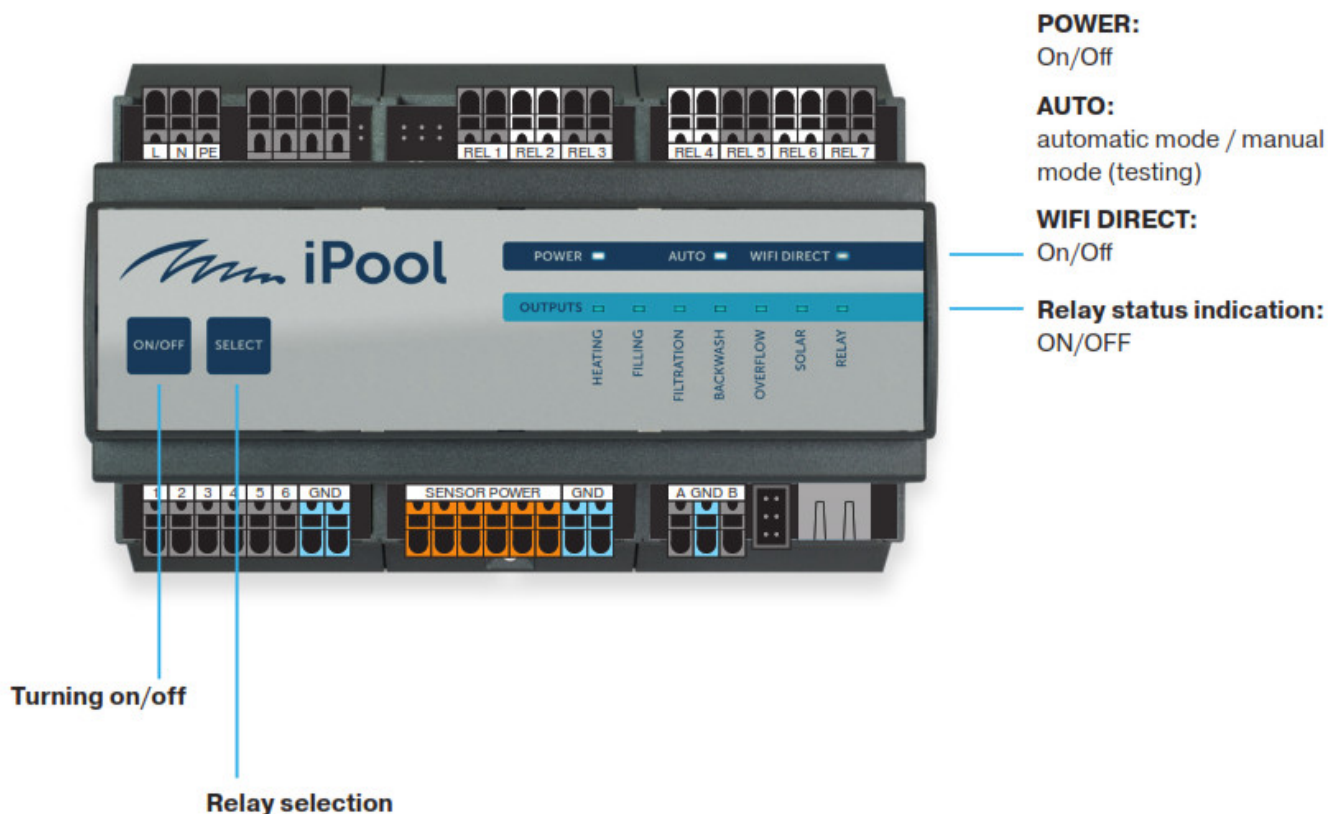
Initial start

Ipool Net Controller will turn to standard operating mode SMART with factory settings after the initial connection of power supply. After repeated switching on the unit continue in the original mode preset by user.

LED Power shines signalize connected power supply

LED Power does not shine the power supply is disconnected

LED Auto shines Ipool Net Controller works in standard operating mode with automatic control.

LED Auto does not shine Ipool Net Controller works in manual mode

LED WiFi shines signalize WiFidirect network is ON.

LED WiFi blinks to wifidirect is connected acting user. At this case are commands from mobile application connected by wifidirect in priority to LAN connection event he LAN connection is available.

Manual mode

It is possible to use buttons at the front panel of Ipool Net Controller for simple control in testing operation when necessary to check function of connected components or in extreme cases when there is no available connection to Ipool Net Controller by application.

Press the button ON/OFF for switching the Ipool Net Controller off or on. Ipool Net Controller switches all outputs off and after switching on will continue in the preset mode.

Press the SELECT button to enter the manual mode. Ipool Net Controller will switch off all outputs and blue LED at the (HEATING) output start blinking. You can switch on or off the selected output by pressing SELECT button and move to next output. This way you can switch on or off all outputs. There will not blink any blue LED after eighth press of SELECT button and you can leave Ipool Net Controller or in manual mode or by pressing ON/OFF button return to automatic mode.

Control with iPool Control Application
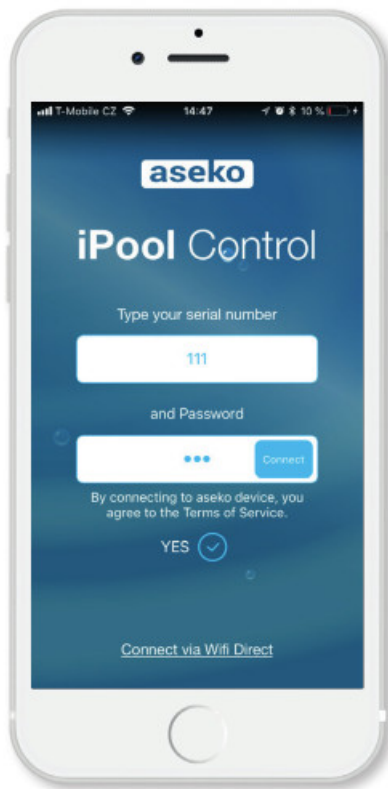
iPool Control Installation

Install the iPool Control application from App Store on iOS device.

Prior to the first connection to the Ipool Net Controller, confirm your acceptance of "Ipool Net Controller Terms and Conditions".

Serial number

Enter the serial number of your Ipool Net Controller.

Password

When signing in for the first time, choose a password you will use. Ipool Net Controller will remember the password. From this moment use the serial number and this password to log in to your Ipool Net Controller.

E-mail

Provide a valid e-mail address to which you have access. E-mail address serves to remind the forgotten password.

Forgotten password

To recover a forgotten password, click for reminding the password.

Connecting via Wifi Direct

To connect to Ipool Net Controller via Wifi Direct, you must be within range of the Ipool Net Controller internal antenna (approx. 3 m).
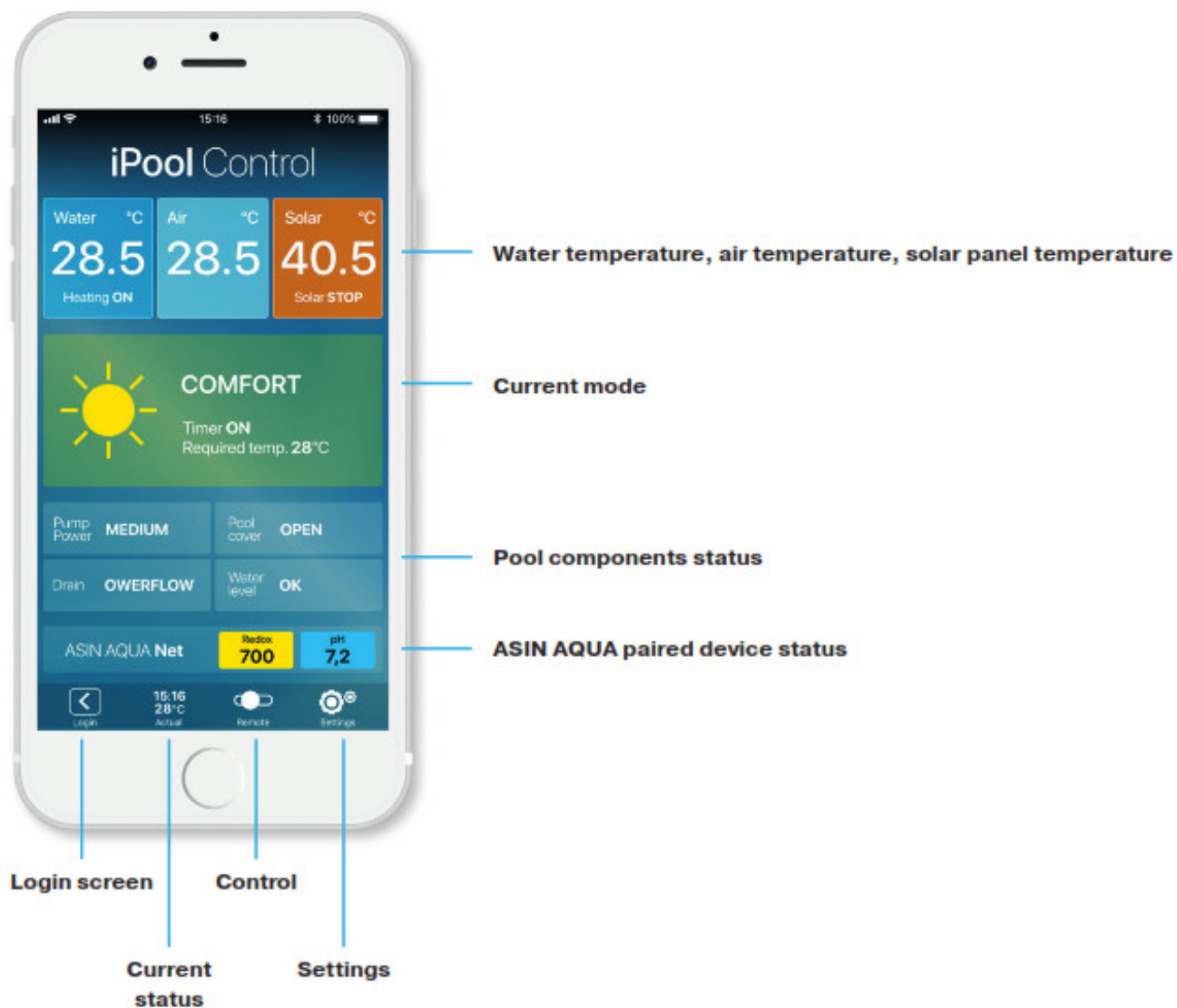
Click "Connect via Wifi Direct" to open the iPool Connect window.

Click on ,,Go to settings Wifi".

A list of Wifi networks will show up, find your Ipool Net Controller serial number, select it and connect. Return to the iPool Control application.

Current status

The screen provides all the important information about the current status of your pool and the connected components controlled by Ipool Net Controller.

Water temperature, air temperature, solar panel temperature

Current mode

Pool components status

ASIN AQUA paired device status

Login screen
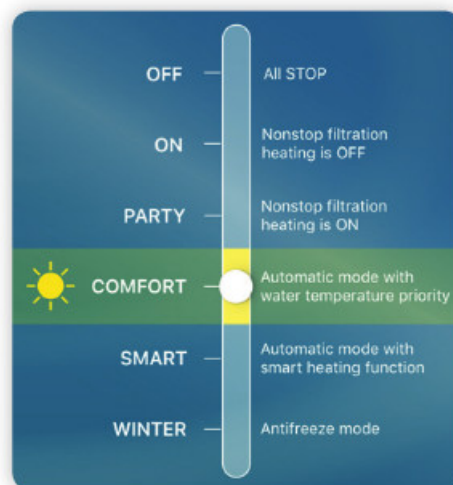
Control

Current status

Settings

Control

The screen serves to switch between operation modes of your pool controlled via Ipool Net Controller.
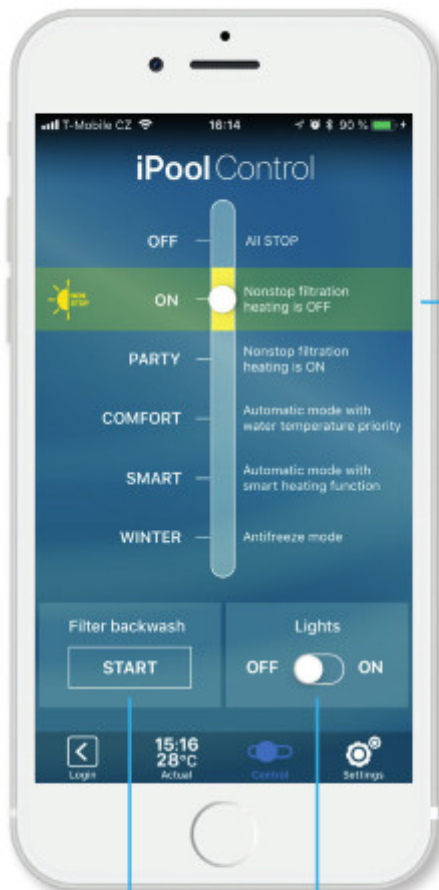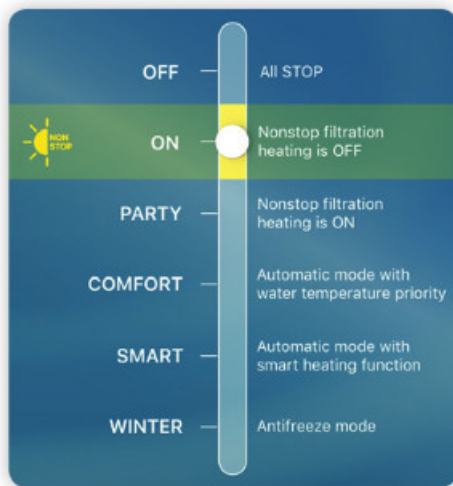
The slider serves to control your pool operation modes.

Switches on the filter washing process

Turns the lights on/off

	All STOP
OFF	
ON	Nonstop filtration heating is OFF
PARTY	Nonstop filtration heating is ON
COMFORT	Automatic mode with water temperature priority
SMART	Automatic mode with smart heating function
WINTER	Antifreeze mode

	All STOP
OFF	
ON	Nonstop filtration heating is OFF
PARTY	Nonstop filtration heating is ON
COMFORT	Automatic mode with water temperature priority
SMART	Automatic mode with smart heating function
WINTER	Antifreeze mode

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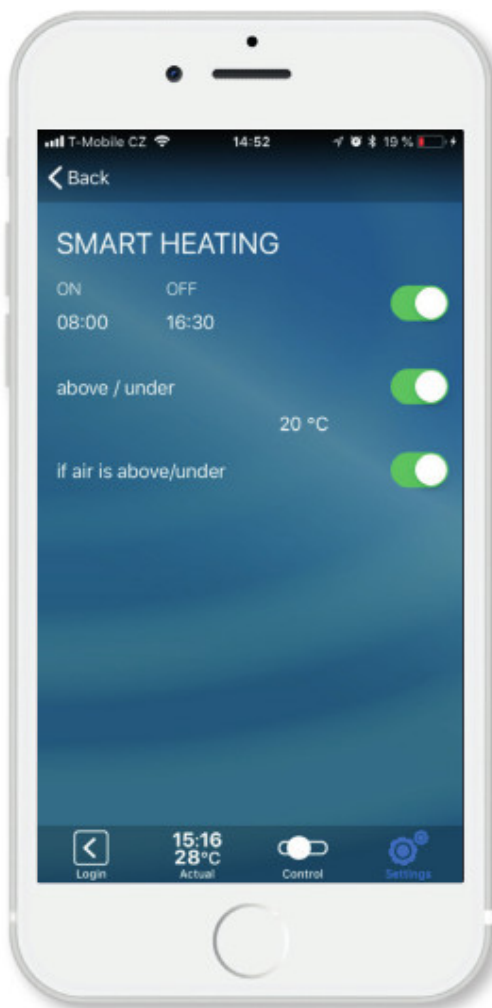|	All STOP
OFF	
ON	Nonstop filtration heating is OFF
PARTY	Nonstop filtration heating is ON
COMFORT	Automatic mode with water temperature priority
SMART	Automatic mode with smart heating function
WINTER	Antifreeze mode

Settings

The screen serves to set the Ipool Net Controller and characteristic of each mode including the filtration timer.
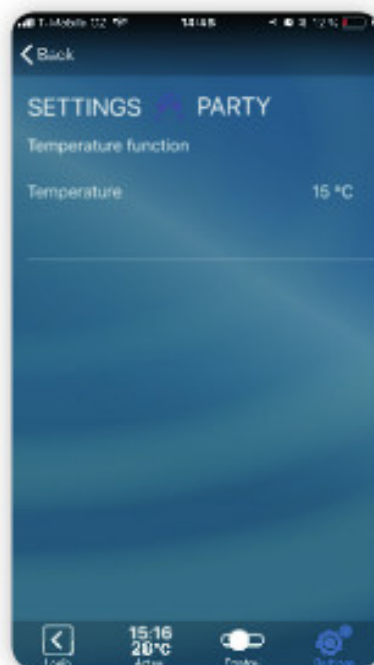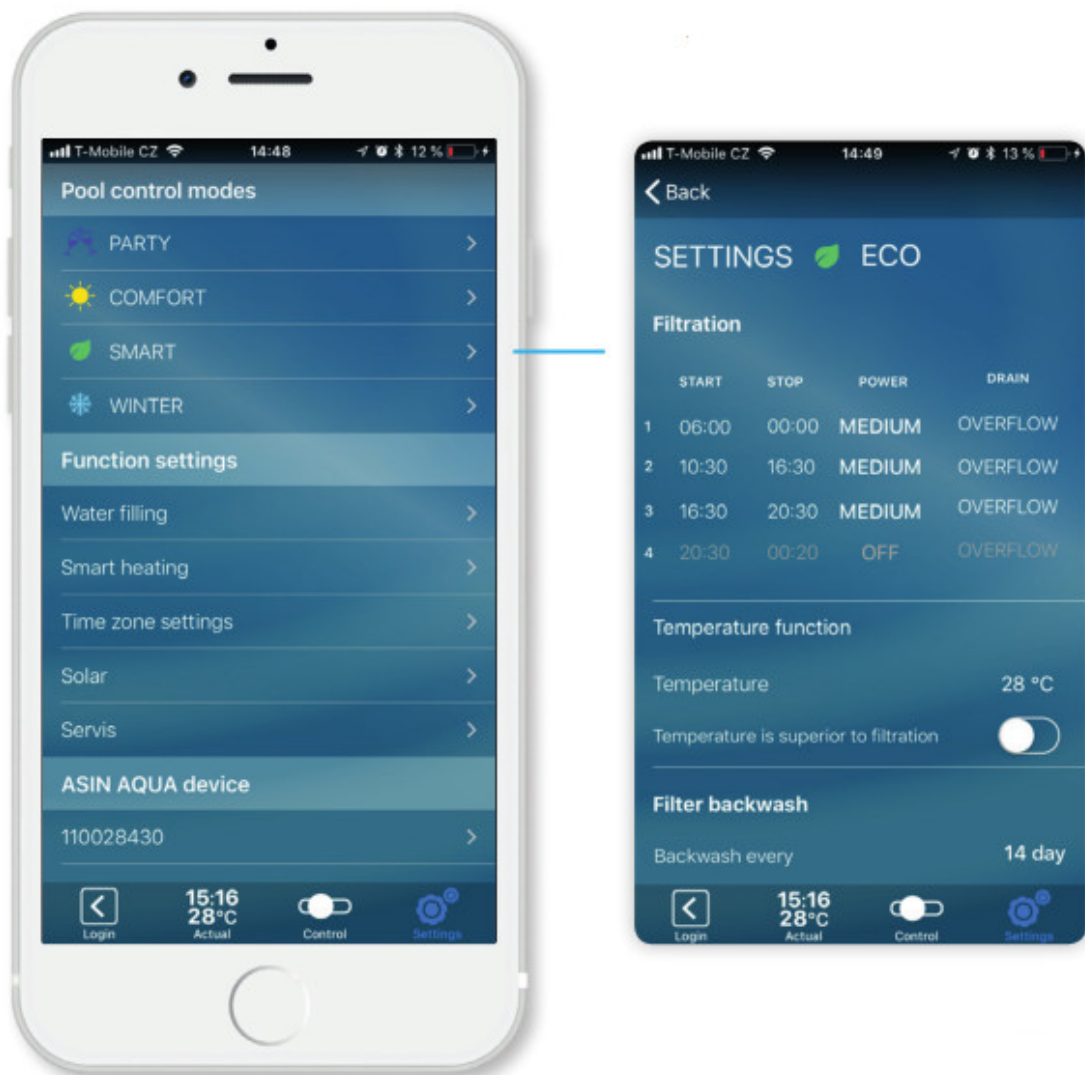
SMART Heating

Heating Time Adjustment

This function allows to adjust time of heating operation. This is particularly useful for switching on the heat pumps that have higher efficiency during the day time when outdoor temperature is higher.

Adjustment of Temperature above/below which Heating is in Operation

This function allow you to customize the pool heating and achieve the highest possible efficiency of the heat pump. "I heat just when the outdoor. temperature is higher than ……, or I heat just till the outdoor temperature reaches …… ." The high-accuracy electronic thermometer is used for water temperature measurement. It should be installed to the inlet pipe comming from the pool. Never install it downstream of the heat exchanger. Significant distortion of temperature would occur. When temperature drops below the required value, the relay No. 1 switches on the heat source (heat pump, electric heating, gas boiler circulating pump).

Temperature Control Takes Priority over Filtration Control

If you select the temperature control to take priority over the filtration timer, heating, as well as the circulating pump, will be in operation even after the adjusted time of filtering. The circulation pump will stop after the required temperature is achieved. It will restart at next preset period of the timer.
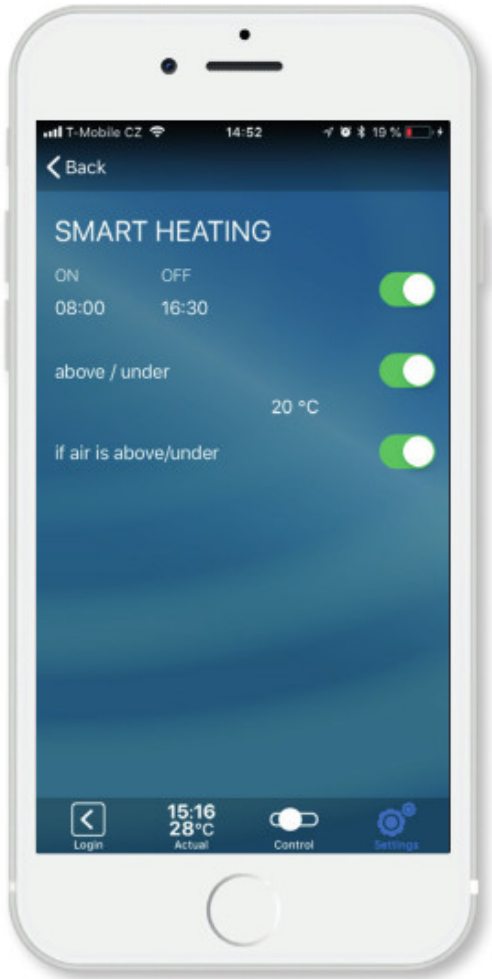
Measuring the level and Automatic water Refilling

The water level is measured by the pressure-dependent level sensor. This allows very easy installation by inserting the sensor into the storage reservoir or skimmer. Water Level is controlled at four adjustable height levels that are easily entered in centimetres. The level sensor cable must not be broken anywhere in order to prevent the balancing tube that is a part of the cable from being clogged.

OVER – too much water in the overflow tank

When this level is reached:

1. The circulating pump starts
2. If the automatic filter washing is enabled, one filter washing cycle starts.

   OK – required level Refilling stops

   ON – level at which pool refilling starts after 10 seconds during which the level is permanently below this value in order to prevent oscillating

Small amount of water

The circulating pump, as well as heating, will be disabled

Maximum Refilling Time

The maximum refilling time acts as protection for case of any failure of the level measuring. This function will switch off the pool refilling after the adjusted time has elapsed regardless of a level sensor signal.
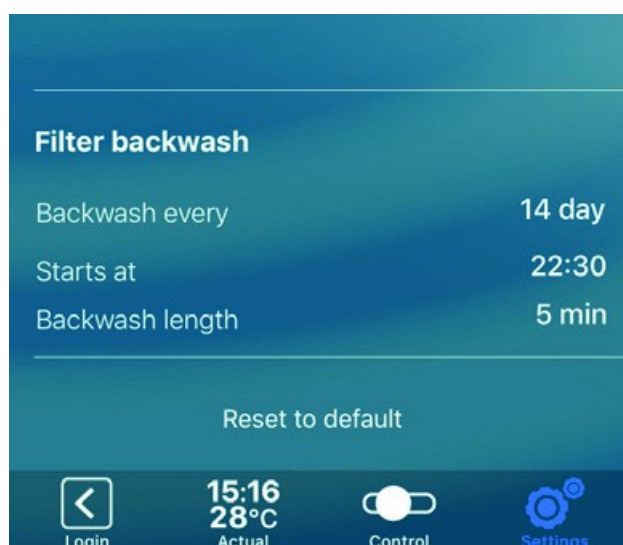
Automatic Filter Washing

The automatic washing function ensures the filter washing on a regular basis in the preselected intervals. To enable this function is necessary to use the automatic 5-way BESGO valve. Its moving controlled by the relay No. 4 switching on/off. When the relay switches on, the BESGO valve is activated and moved to the required position by the action of pressure water or air. See the BESGO manual.

Overflow/Bottom Switching Over

To use this function, it is necessary to install the 3-way BESGO switching-over valve. It is possible to make a decision whether water shall circulate through the overflow or the bottom drainage. If a closed blind control signal appears at the (logic) input No. 5, the relay No. 5 closes and the overflow is switched over to the bottom drainage.

Variable-speed Pump Control

The Ipool Net Controller with the additional ASIN Pump module enable to control the circulating pumps with a SPECK and PENTAIR variable drive. Power of such pump (1 or 2) can be selected at preset periods in individual modes. In case of backwashing, the pump is running at speed 3. Individual speeds 1, 2, 3 are adjusted directly on the pump according to the respective pump manual.

Solar

The Ipool Net Controller allows control of the solar heating. To enable this function is necessary to install the outdoor thermometer to the solar collector. At the preset temperature of the solar collector, e.g. 40°C will solar system circulating pump (relay No. 6) as well as the filter pump start on. This start takes absolute priority over other settings in order to prevent the solar collector from being overheated.

Installation

Controller Ipool Net Controller is to be installed to switchboard or wall-mounted box at DIN-Rail 35 mm. Diagram of terminal blocks and wiring is below. Provide connection and wiring only in if the unit is switched OFF or disconnected from power supply! Wiring of relay outputs may be realized by wire with maximum of 2,5 mm2. Maximum relay load is 230 V AC / 1A. Power supply cable by CYKY 2×1,5 should be equipped by single pole

circuit breaker 6A/250V, characteristic B signed as Ipool Net Controller. Do not forget to add suitable current protector, for example, 16A(B)/30mA.

Maintenance

Controller system and connected sensors does not require any special maintenance. Protect all vent outlets against overlapping.

Safety

Connection of power supply must be provided by person with corresponding qualification. Opening the unit cover or change of any components of the unit is prohibited.

Servis

In case of need any additional info or service, contact the manufacturer:
ASEKO, spol. s r.o.
Vídeská 340, Vestec u Prahy, 252 50
IC: 40766471, DIC: CZ40766471
Telefon: +420 244 912 210, +420 603 500 940
E-mail: **aseko@aseko.cz**

Documents / Resources

aseko Ipool Net Controller [pdf] User Manual
Ipool Net Controller

References

- a **Home - ASEKO – Technology**